

**REMARKS**

Claims 6, 9 and 10 have been amended. Claims 6 and 9-11 are pending.

Claims 6, 9 and 10 were rejected under 35 U.S.C. 102(a) as being anticipated by Naoto (PAJ 2002-033414). Claims 6, 9, 10 and 11 were rejected under 35 U.S.C. 102(e) as being anticipated by Sugihara (US Pat. No. 6,406,991).

Claim 6 has been amended to recite a method for producing a circuit board including “coating the mounting face with a conductor having a predetermined thickness, the coating step including electroless plating followed by electrolytic plating.” Claims 9 and 10 have been similarly amended. Support for this amendment is set forth at least in Figures 1(b) and 1(c) of the Drawings and paragraph 0027, lines 1-2 and paragraph 0029, lines 1-3 of the application as filed.

The methods recited in amended independent claims 6, 9 and 10 are neither discussed nor suggested in either Naoto or Sugihara. More particularly, neither reference discloses coating the mounting face of a printed circuit board with a conductor having a predetermined thickness wherein the coating step includes electroless plating followed by electrolytic plating. In accordance with the invention, electroless plating provides an anchor on the printed circuit board for subsequent electrolytic plating. This results in conductor terminals etched from the conductor that have an unusually strong adherence to the printed circuit board.

Naoto discloses a method for producing terminals on a semiconductor wafer within a chip-size package. As shown in Drawing 1(a), Naoto discloses hot pressing a copper foil (5)

containing an epoxy resin onto a semiconductor wafer (1) thereby laminating the copper foil (5) onto the surface of the semiconductor wafer (1). (paragraph 0008, lines 3-5). As shown in Drawing 2, subsequent to laminating the copper foil (5) onto the semiconductor wafer (1), Naoto discloses using electrolytic plating to form electrodes (8) on the surface of the copper foil (5), but it is clear from the disclosure in Naoto that such electrolytic plating is not employed to coat a conductive copper foil layer onto the surface of the semiconductor wafer (1). (paragraph 0010, lines 1-3).

Naoto also discloses applying electroless nickel plating and unelectrolyzed gilding to the terminals (8) formed on the surface of the copper foil (5) as shown in Drawing 1(c), but again such electroless plating does not pertain to the claimed coating of a conductive copper foil layer onto the semiconductor wafer. (paragraph 0009, lines 3-5). Hence, Naoto provides no teaching of applicant's claimed coating process.

Sugihara discloses a method of producing a contact element on a wafer batch contact board. As shown in Fig. 5A, Sugihara discloses laminating a copper foil onto the surface of a polyimide film to form a laminated body (17). (col. 22, lines 13-15). As shown in Fig. 5B, subsequent to forming the laminated body (17), Sugihara discloses using electrolytic plating to form a layer of Ni and a layer of Au onto the copper foil surface of the laminated body (17). (col. 22, lines 15-22). Similar to the discussion above with respect to Naoto, such electrolytic plating has nothing to do with the coating of a conductive copper foil layer onto the surface of the polyimide film.

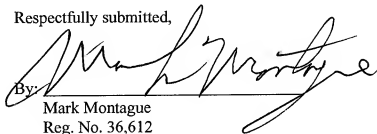
Sugihara also discloses using electrolytic plating to form multiple bumps of Ni having an outer Au layer onto the polyimide surface of the laminated body (17). (col. 22, lines 54-65). Again, such electrolytic plating has nothing to do with the coating of a conductive copper foil layer onto the surface of the polyimide film. Hence, Sugihara does not disclose Applicant's claimed electrolytic plating that is carried out during the recited coating step. Moreover, Sugihara is silent with respect to electroless plating.

In view of the above discussion, neither Naoto nor Sugihara discloses or suggests coating the surface of a semiconductor wafer with a conductor, the coating step including electroless plating followed by electrolytic plating.

In view of the foregoing, it is requested that the rejection of the claims under 35 U.S.C. 102(a) in view of Naoto and the rejection of the claims under 35 U.S.C. 102(e) in view of Sugihara be withdrawn.

In light of the foregoing amendments and remarks, reconsideration and allowance of this application is respectfully requested.

Respectfully submitted,

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